

- * Have HW out
(worksheet #2 and 1 problem from the book)
- * Complete warm up worksheet

WARM UP WORKSHEET:

1) Sue Z-score = 2.667

Jim Z-score = 2.174

Sue's tires were better

$$2) (a) Z = \frac{1180 - 1080}{90} = 1.111$$

$$(b) -2.7 = \frac{X - 1080}{90}$$

X = 837 hours

$$(c) P(X < 1000) = \text{normalcdf}(-E99, 1000, 1080, 90) \\ = 18.70^{\text{th}} \text{ percentile}$$

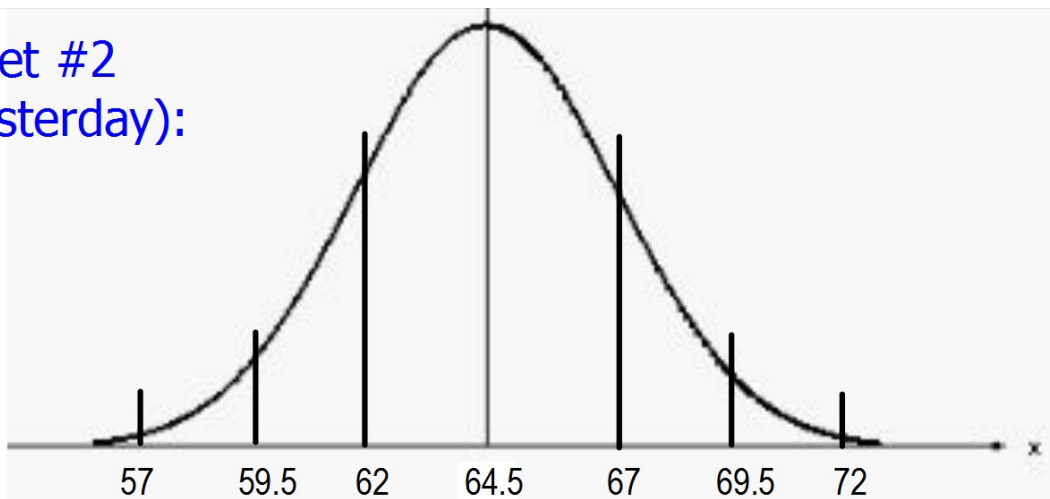
$$\begin{aligned} \text{(d) } P(X > 1300) &= \text{normalcdf}(1300, E99, 1080, 90) \\ &= 0.00725 = 0.725\% \end{aligned}$$

$$\begin{aligned} \text{(e) } P(X > 1200) &= \text{normalcdf}(1200, E99, 1080, 90) \\ &= 0.0912 = 9.12\% \end{aligned}$$

$$\begin{aligned} \text{(f) } P(X < 1100) &= \text{normalcdf}(-E99, 1200, 1080, 90) \\ &= 0.5879 = 58.79\% \end{aligned}$$

$$\begin{aligned} \text{(g) } P(980 < X < 1150) &= \text{normalcdf}(980, 1150, 1080, 90) \\ &= 0.6484 = 64.84\% \end{aligned}$$

Worksheet #2
(from yesterday):



- (b) $P(X > 67) =$ 16%
(c) $P(64.5 < X < 69.5) =$ 47.5%
(d) $P(X < 69.5) =$ 97.5%
(e) $P(59.5 < X < 62) =$ 13.5%
(f) $P(X > 59.5) =$ 97.5%

p. 132

μ σ

37) $N(10, 0.5)$

(a) $P(X < 10.25) = \text{normalcdf}(-E99, 10.25, 10, 0.5) = 69.15\%$

(b) $P(9.5 < X < 10.25) = \text{normalcdf}(9.5, 10.25, 10, 0.5) = 53.28\%$